

Shocks boost catch

DETAILS of an encouraging experiment aimed at increasing the catch rate of Norway lobsters and flat fish are contained in the latest edition of the Scottish Sea Fisheries Bulletin, No.43.

The experiments, which have been carried out by Aberdeen's Marine Laboratory, have demonstrated that by using an electric stimulus the lobsters can be forced to leave their burrows on the seabed and Boston Concord.

This is seen as the only alternative to laying them up with Prince Charles and Boston Concord.

Both Greenland trips were scheduled to start this weekend, with cod the priority catch in these difficult waters.

The third Newfoundland trawler, Boston Boeing, returned to fishing last Friday when she left for the Norway coast.

Meanwhile, Voleus and Prince Philip have been switched from distant waters to the Westerlies.

In another article in the Bulletin, Dr. J. R. Sargent, of the Institute of Marine Biochemistry at Aberdeen, offers a number of suggestions as to why an area of the North Sea off Aberdeen turned 'milky white'. This sighting was reported by skippers in the area in 1975 and various tests on samples of the water showed wax ester to be present.

fishing news

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SALES AND SERVICE THROUGHOUT THE UK

BOSTON SHIPS OFF TO GREENLAND

AFTER the three Boston ships' disastrous trips to Newfoundland, the company has been forced into risking Boston Comanche and William Wilberforce on month-long voyages to East Greenland.

This is seen as the only alternative to laying them up with Prince Charles and Boston Concord.

The third Newfoundland trawler, Boston Boeing, returned to fishing last Friday when she left for the Norway coast.

Meanwhile, Voleus and Prince Philip have been switched from distant waters to the Westerlies.

As with all distant water owners, the company is attempting to meet the needs of processors.

Hugh Brown, Undersecretary for Scotland, mentioned the possibility of imports of herring from Canada when he spoke in a Commons committee which approved orders to implement the North Sea herring ban.

Mr. Brown said: "The Secretary of State (Mr. Millan) met a deputation on February 3 consisting of herring catchers, buyers and processors.

"The pertinent point that emerged was that, in order to keep the processors working,

it might be necessary to import herring.

"That sounds ridiculous, but if we want to keep jobs and preserve the continuity of the markets that some good and efficient firms have established, we even have to consider importing herring from Canada."

The Government is considering the effect of existing tariffs on the importation of herring. This illustrated that they must look at job opportunities and investment in the processing industry.

Alan Beith MP for Berwick upon Tweed, appended — but got an unsympathetic response from the minister — for special con-

cessions for local fishermen to fish local herring stocks like the Longstone stock.

Alec Buchanan Smith, Con, North Angus and Mearns emphasised the need for 100 per cent certainty that the order would be enforced against foreign boats as effectively as against United Kingdom boats.

Douglas Henderson, SNP Nat, East Aberdeenshire, urged the Minister to do more to get the re-opening of fisheries in reporting suspected violations of limits or other fishing orders. There was an opportunity for the Government to get thousands of unpaid servants who would be delighted at the chance,

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out at lumpers'
one day strikeDredging
blocks
harbour

GRIMSBY, Hull, Fleetwood and Aberdeen markets were brought to a halt on Monday this week when lumpers took part in a one-day token strike.

The strike was in answer to a national appeal from the Transport and General Workers' Union over the planned closure of the local authority docks at Preston, Lancashire.

At Grimsby there were angry reactions from the port's fish merchants.

George Coulbeck, chairman of the Grimsby Fish Merchants' Association, said the merchants were angry and frustrated over the lumpers' decision to support the national call for the one-day stoppage.

He wished to make it clear that the suspension of the association's transport scheme for distributing fish on a UK basis was in no way the fault of the trawler owners or the merchants.

Mr. Crawford said the Danes had increased their fishing effort

SIR, in reference to the article 'Criminal fishing by the Danes' (Fishing News, February 18) reporting the investigation by the Trade and Industry Sub-Committee of the Commons into the fishing industry, there are some points I just couldn't let pass without comment.

George Crawford of North Shields said that the Danes had increased their fishing effort

and 'ell' is going for fish meat. Mr. Crawford obviously doesn't know what he is talking about when he makes such empty accusations. The Danes have not increased their fishing effort. In fact the Danes are trying as hard as they can to find other ways of fishing and for different kinds of fish — both for the edible and industrial sides of the industry.

If Mr. Crawford thinks back just one year, he may remember there was an article in Fishing News about 10 or 12 large Norwegian vessels, which had caught as many as 100,000 tons of fish in a season.

It is, therefore, nice to be able to point out one area in which the market is endeavouring to keep up with the times and, apparently, succeeding. This is in the supply of exotic fish — demanded by London's exotic citizens.

It may well be that the tendency of new immigrants to seek accommodation among their already established fellow countrymen served to concentrate their demands, or it may have been that — being used to trading in open markets at home — they gravitated to Billingsgate ignoring the intermediate retail stage.

While this may have caused resentment on the part of the retailer, it did focus their attention on this new group of customers with their specialised needs.

Two Billingsgate wholesalers in particular have responded to this new demand. They are C. J. Newnes Ltd. and Williamson (Wholesale) Ltd. It is probably significant that the people principally concerned in this trade are not Billingsgate born and bred.

Jack Bihela, in charge of exotics for C. J. Newnes, was an airline pilot and still flies off around the world in search of new species, or new sources of supply, that we are becoming familiar with, such as red snapper.

And what red snapper? There does not seem to be a single species with this name, rather it is applied to various species which have a mainly red skin, a steep nose and a low-placed mouth, a very spiny fin on the back end to have originated in the tropical or sub-tropical Atlantic. Most red snapper arriving in Billingsgate come from Argentina and bear the local name *basubu*.

Particular ethnic groups naturally choose fish from their own home waters. Therefore, West Indians ask for flying fish, a little like a mackerel or a herring, but with pectoral fins as long as its body with which to glide and a great tail fin for working up to take-off speed.

Surprisingly for a surface-living, fast swimming, species they seem to have very little fat in their make-up. West Africans are interested in *lithrini*, at least that is what it is called in the market, probably because the original imports of this species were caught by Greek vessels.

Lithrini can be distinguished by their rows of coloured spots, mainly red, some blue and occasionally yellow. Yellow stripes are the distinguishing features of *golden thread mullet* from Hong Kong, but the demand for these does not seem to be confined to London's Chinese, many being sold in West Indian settlements.

It is interesting to speculate about the future of this trade. Will the immigrants, as is the pattern in other times and places, prosper and thereby increase their purchasing power and with it their demands for the exotics? Or will they in becoming more integrated, rejecting their traditional foods? This, however, would seem to be a problem for the future. The immediate one is finding supplies of the right quality and price from a merchant you can trust half a world away.

'Stirling' smashes
port's middle
water record

FLEETWOOD'S middle water record was smashed last week when the Boston Deep Sea Fisheries stern trawler *Boston Stirling* returned from the west of Ireland grounds.

She had 885 kits, including more than 500 of cod and pollack, 200 of haddock, 65 of coley and 10 of dog, to make £28,044.

The fishermen will set Bournemouth Council, through their MP, to reclaim its sand. The sand is said to have killed off prime fishing moks and mutton beds.

THE Colne Group's Oliver, a 254-ton trawler built in 1974, is likely to be renamed *Mystique*. The vessel is currently undergoing conversion for work as a rig-standby vessel.

She record breaking trip.

Donnie Bond, general manager at Fleetwood for Boston, said: "It was a marvellous trip, a credit to the skipper and crew."

There was further cause for satisfaction in Fleetwood's Boston section when the side trawler *Boston Explorer* (Skipper Bill Anderson) returned from the White Sea and Norwegian Coast grounds with 1,377 kits, grossing £38,638 — a new record for a vessel of her class.

Her catch consisted mainly of cod, but there were also more than 100 kits of quality haddock included.

It was a different story for many of the other vessels which landed. They met the good markets, but unfortunately, in most cases, they did not have the catches to take advantage of them. But quality and from the Irish Sea grounds helped some vessels to good grossings.

On the same day *Jedastar* (Skipper Alex Simpson) which landed 131 kits for a grossing of £5,065.

On the same day *Gipsy* (Skipper Jim Erdiel) made £4,400 from 121 kits. Between them the vessels had a total of 120 of cod, 20 of whiting, 78 of roker, three of turbot and brill, two of plaice and two of soles.

On the following day, *Gorgina Wilson* (Skipper Tom Smith) landed 58 kits, including 10 of cod, 15 of whiting, 30 of roker and one of soles, which sold for £2,240.

Completing the week's landings was *Pictor Sealion* (Skipper Trevor Salter) making £3,228 from 72 kits.

Fifteen of cod, 10 of whiting, 48 of roker, two of turbot and brill, two of plaice and two of soles were the vessel's main varieties.

There was extra activity in the docks last week with the arrival of the Hull freezers *Princess Anne* and *St. Benedict* with a total of 1,000 tons of mackerel. This was unloaded into a refrigerated vessel for shipment aboard.

The same made a combined grossing of £17,806 from 696 kits, including over 350 kits of coley and about 250 of cod, on the North Sea grounds.

This is the second time these two freezers have been into the port to offload mackerel into a refrigerated vessel.

The 90-ton *Green Valley*, with a new fishroom capable of carrying about 800 kits, was just un-half-full with 396 kits which sold through the Danbit agency for just short of £10,000.

Skipper Roger Younger, a former deep water skipper with BUT, told Fishing News he had no regrets about moving down to the smaller vessels.

Her main engine is a 425 bhp Caterpillar which caused a few problems when towing as *Poul Antony* is engined by only a 230 bhp Gardner, but the pair quickly sorted this out.

It is over a year since Skipper Younger decided the writing was on the wall as regards distant water fishing and he made the move into pair trawling.

In that time he has been gaining a mastery of the

Irish-owned *Green Valley* below.

"I am more than happy

Left: Skipper Roger Younger who commands the former

Irish-owned *Green Valley*

Below: Skipper Poul Antony

who commands the former

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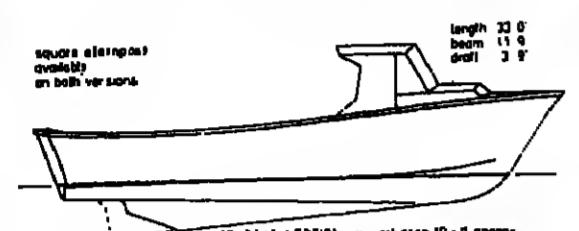
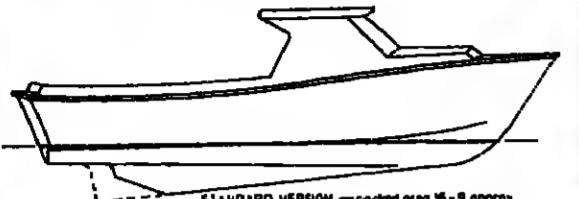
Below: Skipper Poul Antony

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WINCH BUILDERS FOR OVER 75 YEARS.

Sounder series from the USA

AN INTERESTING new range of echo sounding recorders has recently been introduced by the Merlin Systems Division of Western Marine Electronics (Weemar) in Seattle, USA.

One feature which makes them of real interest is that memory circuitry incorporated in them eliminates need for gears, voltage regulators and speed regulators, hitherto used in most transmitter/recorders.

Other features of note are that they are unusually compact; can be used with both high and low frequency transducers; can have white, grey and contour line facilities incorporated — in a single instrument; can record on wet or dry paper; and can be used in conjunction with Weemar sonars to record targets appearing on the latter's cathode ray tube

John Burgess' Log



WHERE TO DIG FOR LUGWORM

THERE are some lugworm beds near here and we propose to dig some for baiting longliners.

"Can you tell us whether it is best to use a spade or a fork, what is the best way of digging them and how to keep them alive until they are put on the hooks?"

A big, broad-bladed fork is the best of all weapons for digging lugs.

Dimple

Here is what one expert says about the procedure. You will see a dimple in the sand or mud about nine inches away from each cast. If you sink the fork a couple of inches or so into the dimple rock it backwards and forwards, water will start bubbling from the east or from another close to it.

This indicates that it is best to use a spade or a fork, what is the best way of digging them and how to keep them alive until they are put on the hooks?"

A big, broad-bladed fork is the best of all weapons for digging lugs.

Speed

You are likely to be able to catch all the worms you want at a satisfactory rate if, while preliminary, you sink the fork deeply close to cast a dimple, and turn it around and forward in a dipole.

It is prudent to give a warning of your present rock your fork back and forward in a dipole.

Since the reel you were shown seemed to be made entirely of plastic, it could have been one of several now in production which have steel frames and bases coated with plastic.

After arrangements had been made for the inshore

He started making them after he had made an arrangement with G. C. Nantes of Portland, Dorset, to use his patented method of welding polythene tubing.

The trap he makes by this method has welded polythene haws and cross bars covered with orange polythene but the base is made of beech or elm.

It measures 27 in. x 20 in. x 14 in. high and weighs about 10 lb. before any additional ballast is added. It has two entrances made of netting of the same sized mesh as that used to cover the pot.

After arrangements had been made for the inshore

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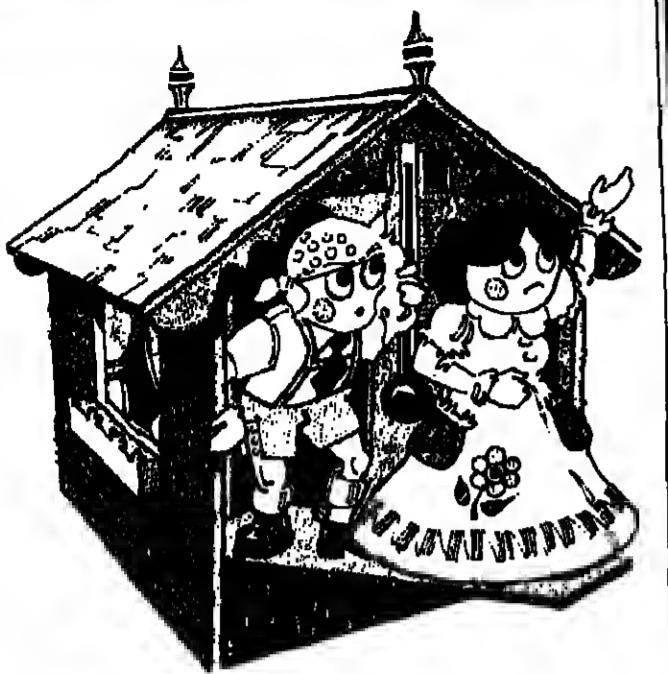
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FISH HANDLING, processing and marketing



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Modest mackerel a lifesaver... FOR THE FIRM THAT KEPT ON SMOKING

GRIMSBY FISH curers have long represented a pinnacle of skill in the ancient art of smoking. The fish docks and the surrounding areas are thronged with smoke houses identified by banks of gently swaying kiln cowls out-topping roofs on the irregular Grimsby skyline.

At one time up to 15% of all deepest fish landed at the Humber port, plus vast quantities of herrings for kippering, ended up in the smoke holes below. But the decline of the herring industry, the rundown of the distant water fleets, and the growing demand from the housewife for convenience fish products have had a serious effect upon smoking in the 'seven-tea' at Grimsby.

Faced with these threats

one of Grimsby's best-known curers, Ernest Cox (Grimsby) Ltd., with a national reputation for quality fish docks based on almost a century of experience, realised three years ago that its survival could well depend on the introduction of a new product. It had to come from a substitute fish as acceptable as the traditional smoked fish best-sellers; moreover supplies of the fish had to be plentiful and, with 200-mile limits on the horizon, the firm took a long look at home-produced trout and the abundant mackerel in our own waters of the Westcountry.

At that time most British-caught mackerel found its way on to continental tables and, although smoked mackerel had been tried before, somehow it had failed to fire the enthusiasm of the British housewife or caterer.

Trout clearly looked the safer bet, but undaunted managing director Graham Peers and fellow director and factory manager Kenneth Mumby-Croft went for the mackerel. They believed Cox's skilled staff and production methods could develop a product which eventually would become an acceptable selling line.

Line-caught

Contacts were made at Plymouth and Newlyn with Cornish fishermen for the supply of graded line-caught whole fish. Encouraged by the two directors, production of a headless, gutted whole fish began. It was not instantly successful, but the persistence of the sales staff, selling hot-smoked mackerel for the first time through existing accounts without a massive advertising campaign, gradually gathered momentum.

Taking up the story Mr. Mumby-Croft told *Fishing News* the turning point came about five or six months after the whole fish had been launched. A request came in for ready-cooked smoked mackerel fillets and suddenly Ernest Cox (Grimsby) Ltd. was on a winner.

Sales soared as the plant went flat out to meet the demand. In less than three years smoked mackerel fillets were outselling the renowned Cox's flounders and as a ready-cooked product it was fast becoming a delicious new taste in restaurants.



Director and factory manager, Kenneth Mumby-Croft, who was responsible for much of the pioneer work.

delicatessens, 'wine and dine' establishments and above all was catching on with the housewife.



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FISH HANDLING, processing and marketing

(horses) before entering the kilns. Each rack holds about 50-stones of fillets and the Ato kilns, specially introduced for mackerel, can cope with 100 stones, or two racks, every 24 to 3 hours.

The firm had developed its own specialist techniques for the 'cooking' and with so many rivals attempting to copy this delicious taste it would be wrong to divulge too much. Sufficient to say the 'cooking' comprises a three stage process where temperatures and smoke are carefully controlled.

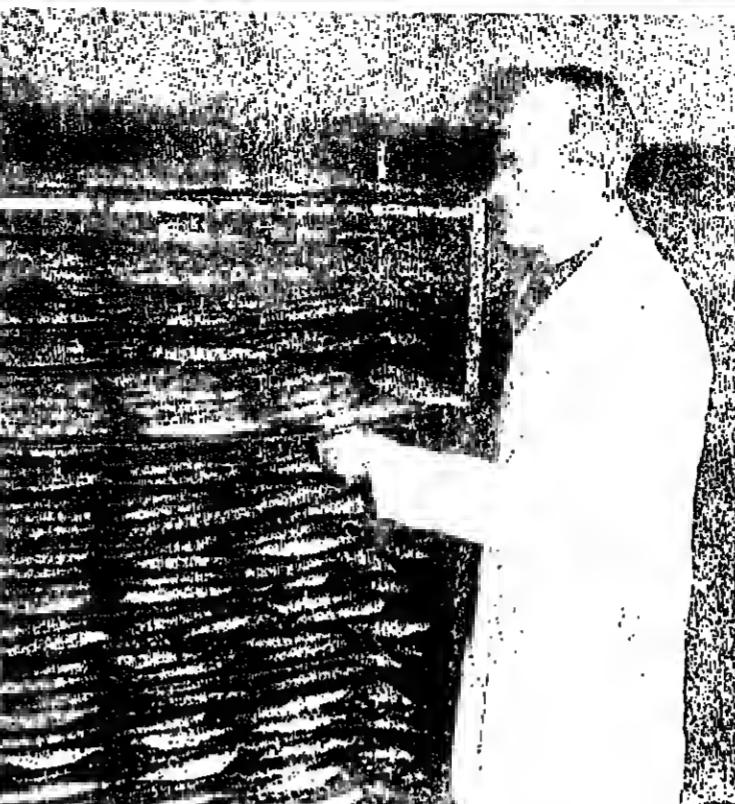
Once out of the kilns the fillets are allowed to cool naturally to prevent sweating and then the ready-cooked fillets, averaging between 4 and 6 oz, are graded and packed, often to individual customer requirements, in interleaved 7 lb. boxes.

The packers have an uncanny eye for accuracy and check-weighing on scales is usually little more than a formality. Working at an amazing speed two girls will clear a 'horse' in 20 minutes. Of the original whole fish 50% goes for offal in the filleting ends and a further 10% weight loss goes in the cure.

The firm still produces a whole headless and gutted hot-smoked mackerel, individually packaged in polythene sleeves.

The preparation varies in the brine soaking, which lasts for 50 to 60 minutes, and the fish are 'rodded' up for vertical smoking on the racks, otherwise the processes are identical.

A major selling point with Ernest Cox ready-cooked mackerel, whether fillets or whole fish, is that no dye or artificial colouring is used in the production and the rich, appealing appearance is produced by a completely natural cure. The firm is also supplying its associate company, Fish Products Ltd., of Grimsby, with mackerel smoked and ready-cooked fillets for free-



Above: factory foreman, Jack Atkinson, in the smoky atmosphere of the kiln room inspecting mackerel fillets. Far right: in the mackerel fillet packaging department. Fillets are being interleaved.

ing and these are available under the 'FP' brand in a 2 lb. vacuum pack containing about 26 fillets.

Such then is the story so far of Ernest Cox (Grimsby) Ltd. and the modest mackerel. Three years ago its 47 employees faced a bleak future, but the silvery mackerel has brought security and probably further expansion to this much-respected firm. Above all it is a personal triumph for managing director Graham Peers whose unflagging drive and encouragement to his staff has brought a rich reward from a most unlikely source.

Taste for hake is growing...

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French port prepares for freezer boom

IT HAS BEEN forecast that in the years between 1972 and 1980 the frozen foods market in Western Europe will more than double. To cash in on the boom, Boulogne-Sur-Mer, the major fish port in France, has started a programme of development aimed at bringing it on a level with the major European centres for freezing and cold storage.

By taking advantage of its locations at the intersection of important European trade routes, the port aims to become the frozen foods capital of the EEC.

A big increase in Boulogne's frozen fish production by the end of the decade is just one part of a four-pronged growth programme for the port which takes in ready meals, frozen meats, and frozen vegetables which are considered to have the greatest development potential of all.

According to a detailed market survey completed for the Boulogne Chamber of Commerce and Industry at the end of 1974, Western European countries will be requiring a total of 2.8 million tons of frozen produce by 1980, a huge growth of about 130 per cent since 1972 and about twice that of any other of the major food markets. In comparison, the growth of frozen foods in the United States is expected to be only around 50 per cent over the same period.

Although the increase in consumption of seafood, at one time the leading frozen commodity, is expected to slow, fish and shellfish will still command about a 20 per cent share of Europe's frozen foods. Thus, therefore, has a very important role to play in Boulogne's development plans, and the presence of a viable trawler fleet there and the concentration of a number of firms specialising in freezing, processing and marketing fish and fish products is one of the keynotes on which the whole expansion programme rests.

The average yearly landing of fresh fish by the Boulogne home fleet is about 140,000 tons, making it the leading fresh-fishing port in France and one of the biggest in Europe.

The total traffic in fish through the port, however, is much greater. Last year about 250,000 tons of fish passed through, of which more than 122,000 tons were landed by Boulogne's deep water fleet and about 25,000 tons by boats from other French ports.

The remaining 100,000 tons were made up of imports, mainly deep frozen, which were brought in either by lorry or by refrigerated transport ships from the USSR, Spain, Argentina and Africa, and

from the French tuna bases in the tropics.

With such a large volume turn-round of fish and other frozen foods (Boulogne will be freezing at least 30,000 tons of green vegetables by 1980), adequate cold storage capacity is vital. In 1974, the combined volume of Boulogne's

ice machine of 100 tons a day capacity. On demand, therefore, the port is able to produce up to 550 tons of ice a day and to store a reserve of up to 1,200 tons.

At least eight companies at the port are engaged directly in fish freezing and processing. These include: Pecheries de la Muriel (Findus); Ste La Surgelation Alimentaire (the big Pecle et Froid Group); Ste Allum; Cie du Froid Alimentaire and Ste Gelmer.

The processors get their supplies either from high-quality fresh fish landed locally or from frozen block imports. In the former case they will often deal directly with the producers rather than buy through the market. All frozen fish, however, has to be sold through the auction. There is also a law in France which prohibits the defrosting of frozen consignments, except for canning and smoking, so the bulk of frozen fish is utilised in the frozen state.

Boulogne, it points out,

produce fish packs in a wide range of varieties and sizes, both the catering and domestic trade. Their products include whole fish, fillets, portions, slices, sticks, and a variety of fish cakes, fish croquettes and prepared fish dishes.

It is emphasised in the Boulogne Chamber of Commerce survey that although a total growth in frozen foods of 100 per cent is forecast for Western Europe as a whole, the market shows a wide regional variation, being concentrated in the main consumer centres.

These are the UK, which

itself represents more than

one-third of the market.

It is followed by West Germany with about 20 per cent and France with 10 per cent. Together, therefore, the three countries account for two-thirds of frozen food consumption in Europe — so this, according to the report, is a lead they are likely to retain.

Boulogne, it points out, is

suited for freezing and processing. And for firms wishing to expand or to move into the area, there are attractive financial incentives, including a regional development grant and various tax exemptions.

But while delighted with these prospects, Boulogne fish producers are more than a little concerned by a downward trend in the port's landings since 1973; worsening the situation is the present heavy demand for fish by Germany which, backed by a strong currency, is swallowing up raw material that the French processors badly need.

As a lure for new investment, Boulogne and its environs offers one of the highest potentials for available manpower in France, with almost 40 per cent of the population under 20 years of age. It is at present developing a whole new industrial zone just north of the main town called "La Tresorerie", which is well suited for freezing and processing. And for firms wishing to expand or to move into the area, there are attractive financial incentives, including a regional development grant and various tax exemptions.

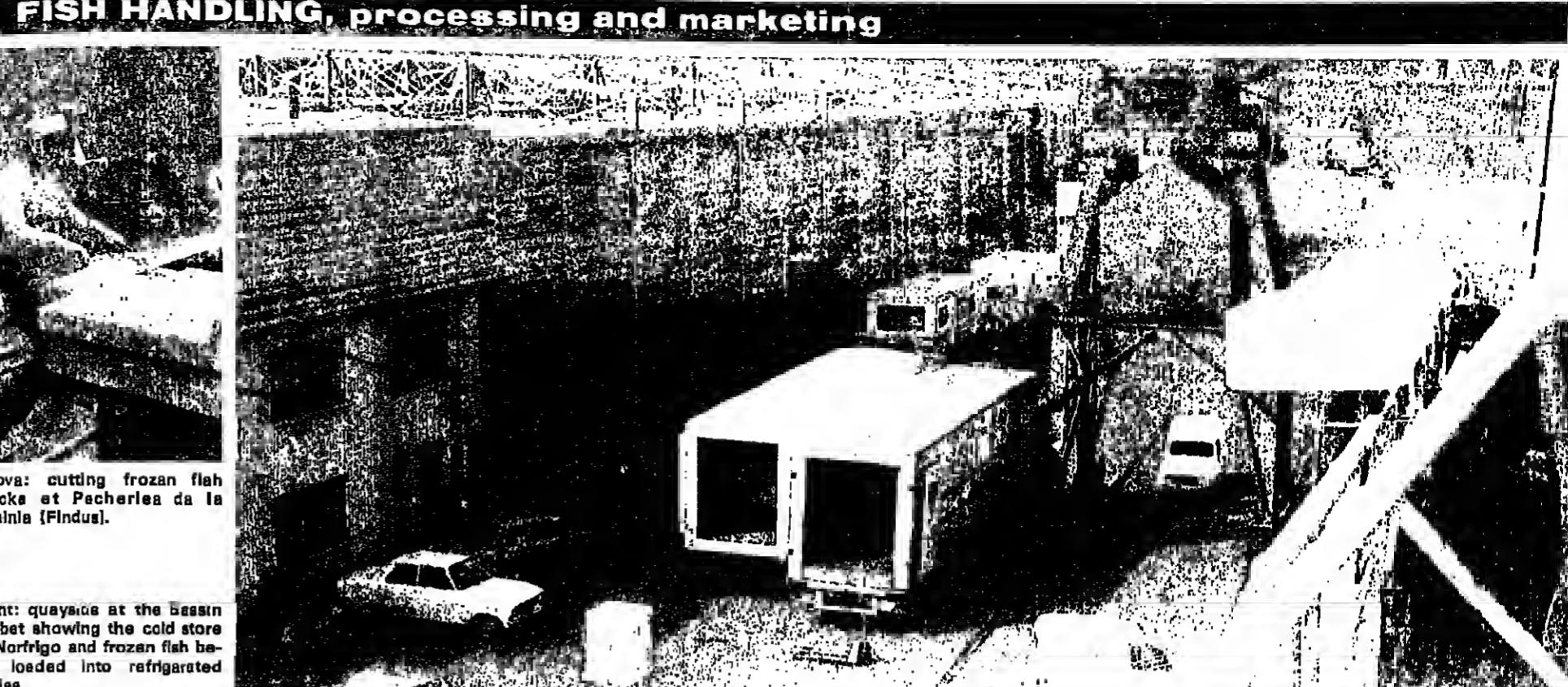
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During the next three or four years, the problem for Boulogne will be finding supplies.

PLASTIC ON TEST



A wet fish catch from a Boulogne stern trawler being sorted on the quayside into 40 kg. Albert boxes. These large boxes are not used aboard the local fleet.



Above: cutting frozen fish blocks at Pecheries de la Muriel (Findus).

Right: quayside at the Bassin Loubet showing the cold store of Norfrigo and frozen fish being loaded into refrigerated lorries.



Young's Seafood processing plants are down in Devon, up in Lerwick. Over in King's Lynn, across in Stornoway.

So we're a national company, both in production and distribution. But we're also local — for one of the most important things we've learned in 172 years of seafood business is that the personal touch really matters.

You can rely on Young's.

You can rely on British seafood too. Because — like Britain's fishermen and our customers — we have full confidence in the quality of this country's world-famous seafood.



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FISH HANDLING, processing and marketing

SCAMPI DEVELOPMENT IN SCOTLAND

PIONEERING some of the most advanced methods of scampi production is the west coast firm of Scottish Seafoods. This is one of five processing plants operated by the Young Group of Companies in Scotland.

The opening of a £500,000 extension at the Annan factory by the Secretary of State for Scotland, Bruce Millan, (Fishing News, February 25) underlined the rise to prominence of the once humble nephrop.

From a small shellfish factory which was originally set-up to produce peeled shrimps has grown the largest scampi plant in the UK employing over 400 people.

The sudden growth in the scampi market is reflected in the price of nephrops from which the product is made.

Just three years ago these were fetching around £3 a stone. Now they average out

COUST FREEZING FOR A TOP PRODUCT

at £12 to £25 a stone.

Last week nephrops were breaking all records at Mallaig, where one boat made £40.00 a stone.

Over the next year, fish worth £3 m. will be coming into the factory. The peak of the scampi season runs from April-October and so the factory is also fast building up a scallop production line and will also be handling queuenas. Most of the scallop production is destined for the French market, with queuenas going to the United States.

Main supplies for the scampi line come from Ayr, Girvan and Mallaig, on the west coast, as well as ports on

the east coast down to Blyth. The scampi tails come into the factory in plastic boxes and they are washed and machine graded. Next stop is the chill room, before they move on to the Frigicandia liquid nitrogen freezer which can deal with 100-stone an hour, freezing down to 20°F.

After being weighed into 35lb. blocks, the nephrops pass through a glazing machine to prevent dehydration during freezing.

A three-shift system is operated at the factory and the main concentration of labour is centred on the hand peeling line. There are 102 of these expert ladies on the day-shift and 80 come in at night. Following an eight-week training course, a peeler will produce a 10lb. unit in an hour (approximately 10 a minute). Top speed peelers will produce nine to ten (10lb.) units a day.

When peeled and de-

veined, the scampi tails are placed in bins on a conveyor belt which moves them along to an X-ray machine. Here, broken fish or fish with veins left in are revealed and rejected.

Development work is now

being carried out at the factory with an automatic peeling machine. So far this machine has cost around £10,000 and, at this stage, Young's will only cautiously say: "We're slowly winning".

While development of this machine is a long term project, it is not viewed as a replacement for high quality hand peeling.

The machine is hand-fed. Scampi tails pass on to a drum, where the vein is taken out, and then to a second drum for the extraction of the meat. Shells with any meat left in are automatically sorted out at the end of the operation.

In the fast freezing depart-

ment, Young's is also pushing ahead with new techniques. Apart from the standard Frigicandia liquid nitrogen systems at the factory, the plant is the first in the UK to employ CO₂ as a freezing agent.

The original work on this machine was undertaken by the firm of Greer of Sittingbourne, Kent. After £25,000 in development money had been put in by Young's, the Sittingbourne firm closed. So, it was decided to bring the machine to Annan, along with the development engineer who had worked on it.

The system is basically a hand freezer linked to a spiral freezer, working with an impulse feeding unit. Although there were initial problems with the link up of the hand and spiral system, these have now been overcome. Transfer of the product to the spiral freezer is achieved by using a

sliding freezing end and

shell-on tails are de-

red into six sizes

they leave the factory.

Shell-on product has the

advantage of a fish finger pack

time it is ready for the market.

Using the expansion of

the plant, Young's is

pushing ahead with

development on the

factory. Work has started

on a new extension to the

factory.

While conservation is im-

portant, pointed out Mr.

Young, "the aim must be to

place the management of

fisheries on a basis of

longer-term planning

between ministry, fisherfolk

and processors."

The CO₂ system has

the advantage of speed

of freezing and

processing of the Young Group.

A wide range of packag-

ing is available, from 1 lb. bags

to

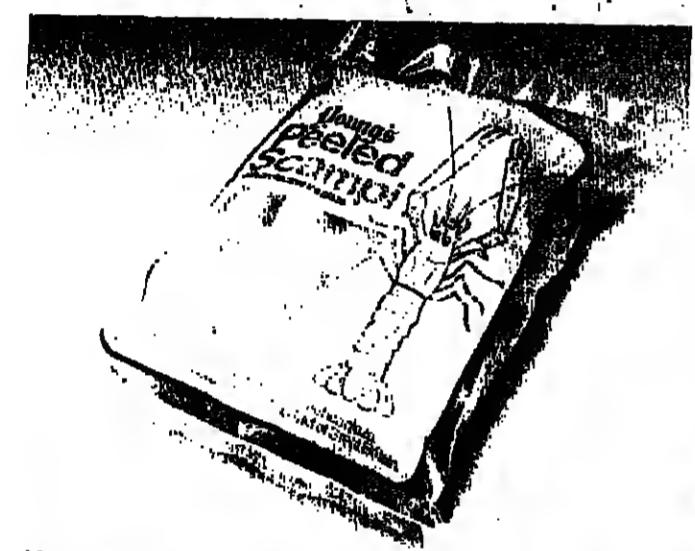
tonnes

of

shrimps.

Young's has his scampi

marketed in the United States, Canada, Australia and Europe. Shell-on packer instant fishing bags are popular mainly in the market with our in-



Above: 1 lb. bag of Young's individually frozen scampi. Three grades are available: 50, 35 and 25 to the lb. Below: peeling the traditional hand method.

HUNDREDS OF SCAMPI

SCOTTISH scampi is being exported to many parts of Europe from a small but thriving processing firm in the Fife village of Anstruther.

With a turnover last year of just short of £1 million, Fleming's Scottish Scampi Ltd. provides employment for about 70 people, and extensions now being built will enable more people to be taken on in the near future.

Founded by John Fleming in the mid-1960s, the firm began to look into the export market in 1969 and business has steadily grown. Today, the company has important outlets in Germany, France, Spain and Italy.

Some four or five years ago the firm linked up with Etruria S.P.A. of Italy, which now has a half share in the business in partnership with John Fleming.

The link between the two concerns provides mutual benefits in that Etruria market Fleming's products in Italy, while Fleming's is able to handle the Italian firm's products in this country.

Some 80 per cent of Fleming's products are sent abroad and the most popular line is whole uncooked frozen nephrops packed in one kilo cartons.

The firm is able to handle up to 2,000 kilos of whole fish a day and in addition buys nephrop tails for freezing which can take a load of nine tons.

Catches are bought every day on a contract basis from boats based at the nearby port of Pittenweem where there is a year-round trawl fishery for nephrops. Supplies are also obtained daily from the Isle of Skye where catches are collected from the boats by Portree Fisheries.

Nephrops from the west coast, especially the larger fish, are often caught in baited creels.

At the factory the heads-on fish are packed in one kilo cartons before freezing and a grade mark on the carton indicates the number of fish it contains. According to the size, the number in a carton can vary from only four or five to as many as 50.

After passing through a nitrogen tunnel freezer the cartons are packed in ten kilo boxes ready for dispatch.

Germany

Nephrop tails with the shell-on are frozen and graded in one kilo polythene bags and these are mainly popular in Germany and Italy.

Products from the shelled tails include breaded meat in one kilo polythene bags for the home market.

At present a hired 40ft. French truck takes products to Italy once a fortnight. However, for deliveries in Britain and France, the firm has just invested in its own £16,000 refrigerated truck which can take a load of nine tons.

As the firm's work has developed the factory has brought more modern equipment. It now has two cold stores of 16 and 60-ton capacity, and a BOC nitrogen tunnel freezer.

The breeding machine is from Faunmed and the boxes and cartons for packaging are from Field, Son and Co. Ltd. of Killingworth, and W. T. Flynn of Edinburgh.

Mr. Fleming told *Fishing News* that when the extension to the factory is completed, the firm hopes to extend its buying activities to other ports.

At one stage a processor asked him if he would also buy fish from Scottish ports, but Mr. Fleming later decided to enter the fish processing business on his own account.

Beginning with a staff of eight women, the firm became operational in 1968 and the business has steadily expanded with the growth of its continental outlets.

The growth has been halved by the fall in value of the pound which has enabled Britain to sell more competitively in Europe and the firm was given added impetus to sell abroad when there was a slump in the home market for scampi two or three years ago.

Through its links with Etruria, Fleming's has been able to exhibit at international trade fairs. Last year its products were displayed on the Italian firm's stand at the food and processing show, *Expo Alimentaria*, in Paris.

A nine-ton capacity truck was chosen as it allows customers to receive just the right amount of supplies they require once a fortnight.

Although scampi is the factory's main product it also markets monkfish, squid and Dover sole for freezing and export, these having been specially asked for by some of the firm's continental customers.

Speaking to *Fishing News* from Anstruther, Mr. Fleming said that his company was originally a haulage contractor specializing in fish transport.

At one stage a processor asked him if he would also buy fish from Scottish ports, but Mr. Fleming later decided to enter the fish processing business on his own account.

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A selection of products from Fleming's of Anstruther. Most of the firm's production is exported.

Right: a selection of products from Fleming's of Anstruther. Most of the firm's production is exported.

Above: a selection of products from Fleming's of Anstruther. Most of the firm's production is exported.

The firm's new £16,000 refrigerated truck delivers to Britain and France. The driver is John Bussell.

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Below: a selection of products from Fleming's of Anstruther. Most of the firm's production is exported.



FISH HANDLING, processing and marketing

product line

FISH RE-FORMED IN ANY SHAPE

A PROCESSING line which turns out re-formed fish to any required shape or size has just been introduced by the Guylew Manufacturing Co. Ltd. of Norfolk.

Designed to handle white fish, successful trials have also been carried out on re-forming scampi.

The development of the five-unit system stemmed from the well-known Guylew Mark II

Suprapad Food Former which, although in wide use for forming fish cakes, has mainly been supplied to the meat industry.

With the effect of only inducing the required amount of product into the shaping pockets.

It was immediately realised that the same principle could apply to re-forming delicate fish such as scampi and, so, a special scampi head was produced for the food former which, in combination with the new scroll, resulted in the first really successful scampi re-forming unit being installed.

Using polyphosphates, dry matrix mix to hold the fish together, it became clear that any variety of fish meat could be processed through the former to create virtually any size or shape of fish portion. This is an ideal combination at a time when there is a general shortage of white fish and the potential of an over-abundance of such difficult-to-manage varieties such as blue whiting.

For the fish processor with adequate supply lines of plain white fish, the line has the advantage in that it is no longer necessary to freeze the fish

with the effect of only inducing

the required amount of product

into the shaping pockets.

Following demands from the meat trade for a machine to eliminate 'creaming' or breaking down of the texture of the product being formed, Guylew

developed a new feeder scroll for the machine. This has a variable torque second stage

which the cockles had passed

caused the illness by examining

bacteriologically, the patients' faeces and any food

that may have been left over from the suspected meal.

The second line of enquiry looks for those factors that the patients have in common and which are not shared by their friends and relatives who have not developed the disease.

In the Thames Estuary, cockles have long been produced from beds in an estuary which carries away to the sea the waste products of the many millions living in London and the Home Counties.

As man's knowledge of microbes grew, then laws designed to ensure the elimination of harmful organisms from the seafood were made.

In the Thames Estuary, cockles have long been produced from beds in an estuary which carries away to the sea the waste products of the many millions living in London and the Home Counties.

Establish the organism which caused the illness by examining bacteriologically, the patients' faeces and any food that may have been left over from the suspected meal.

The second line of enquiry looks for those factors that the patients have in common and which are not shared by their friends and relatives who have not developed the disease.

White the first line of enquiry drew a blank and has continued to do so in spite of very intensive investigation eleven separate laboratories were at some time involved, common factors began to show very early.

It is therefore decided to take what is for the department extreme action. It issued a health warning. That is it released to the media a statement in which it was said that there is a direct connection between the eating of cockles and the outbreak of food poisoning.

Leigh was pin-pointed as the source and people were advised against eating cockles until the matter had been cleared up.

Enquiries now switched to the source of supply of the cockles and here the only factor which held good for all the outbreaks — which stretched from Southampton to Southend and back again to Chichester

was that the cockles had originated at Leigh on Sea, Essex.

Insufficient labelling and

the number of hands through

FISH HANDLING, processing and marketing

EVER SINCE man started to get rid of his waste products by emptying them into the sea there has been a danger in eating filter-feeding molluscs such as oysters, mussels and cockles.

Over the years taboos, traditions and eventually laws have protected man from the consequences of his own actions. In certain cultures the consumption of shellfish was forbidden, in others its season limited to the cooler months when infections seemed less likely.

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This unit allows the re-formed fish portions, or scampi, to be delivered on to the belt of an enrober, or flesh fryer, or even a freezer, with only the minimum gap between pieces.

Also, without the use of any hand labour which would break up the newly-formed portions.

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FISH HANDLING, processing and marketing

THE RE-OPENING just a year ago of the Inverervie factory of Highland Seafoods, a member of the Young Group, marked a £400,000 investment in the future of the crab fisherman.

In many areas the crab had been regarded as a by-catch of lobster fishing and often the demand for crabs was so poor that they were dumped back overboard.

With facilities to take in 15-tons of crabs a day, the Inverervie factory provides an important market for crab fisherman in many parts of Scotland and it is now negotiating to extend its buying operations to the north-east.

Even during its first year of production the factory has been able to increase the price of crabs for the fisherman and is providing them with a sound living at a time when high operating costs could well have forced many of them out of business. This encouragement has given the crab fisherman a renewed confidence in the future and is also helping some of the smaller fishing communities to survive.

The factory also provides very welcome employment for 105 women at the present time as compared with only 26 a year ago. They are able to work hours which fit in best with their home commitments and the firm also runs a training course for school leavers.

Further development is planned and extensions now under construction will

Scots crab plant pushes south for supplies



Left: new 100g crabmeat pack from Young's Inverervie plant. Brown and white meat are presented in a shell.

and to encourage a revival in crab fishing, thereby providing a new prosperity for the crab fisherman.

Mr. Cloude went on to say that crab is now looked upon as a prize shellfish and that good crabmeat demands a place in the home deep freeze cabinet.

Soups

He commented: "Crab salads and sandwiches have always been popular but now more housewives are using crabmeat in soups and hot dishes".

Collection of crabs from the ports is arranged to fit in with the times of landing and allows the factory to undertake 16 hours continuous processing a day. For instance, crabs bought in Caithness are collected in the afternoon and arrive at

provide a further 20 per cent of factory space and will allow the firm to extend its range of crab products.

General manager, Mr. G. I. Cloude, told *Fishing News* that the firm is beginning the

year with confidence. Last year new products had been introduced and 1977 will be a year of consolidation.

He said the aim of the factory is to present a high quality home-produced product

— if not in Europe.

Intel Engineers of Aberdeen supplied the processing and handling plant, and the

— if not in Europe.

FISH HANDLING, processing and marketing

Firm's 'cheap foreign fish' sales rocketing

FISH FROM Norway, the Faroe Isles, Denmark and Holland has been turned into a £700,000-a-year business in the West-country.

Six years ago, when Graham Roe left the Merchant Navy armed with his qualifications as a Master Mariner and navigator, he looked through the "Sits Vac" columns in the local press and read of a job in the West-country.

The ad. took him to Grimsby and he was taken on by the Chaldur Frozen Fish Co. He wasn't actually offered money. He was simply let loose with an old van

and 100 tons of fish. "Sell it," the firm said.

That was the start of Chaldur's Plymouth-based enterprise, which now has built up a turn-over of more than £700,000 a year.

Hawking

Mr. Roe (38) has a small staff and offices at Estover Road, Rotherham. The first sale he made was 10 lb. of plaice for £3.75.6d. He spent the first three months hawking fish himself and then took on a part-time driver — and gave him use of the old van while he graduated to a car.

Chaldur was taken over by the Faroese co-operative,

Foruya Fiskasöli, some years ago.

Chaldur receives fish from Norway, the Faroe Isles, Denmark and Holland via trawler lorries from Grimsby.

Friers

The Plymouth depot handles mainly cod, haddock and plaice, selling principally to the fish fryers of the West-country. However, factories, entering outlets, fishmongers and fish wholesalers all do business with Chaldur.

The depot is now trying to diversify, looking at the cash-and-carry outlets used by people with home freezers.

Chaldur can hold up to 280 tons of frozen fish in Plymouth and is now taking some locally-caught whiting.

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CIMCO

Cockles — from page 15

Winter vomiting on Canvey Island, Essex. The virus which causes this condition has never been isolated but there is no doubt that it is spread by the faecal oral route.

At the time, Leigh corkermen were working the beds near to the sewage outfalls from Canvey Island. There was a period of extremely cold weather which meant that cockles stayed overnight on the catching boats were almost frozen when processing began. This was to try out suggested methods and discuss their results with Mr. Ayres basic plan to separate the use of heat-shocking from the use of sterilisation.

So, he proposed that the initial use of steam or heat, water in the process should only be sufficient to cause cockles to open their shells. Then would follow the various rinsings and brines which had been such a source of contamination in the past, and finally to the cockles to sterilise as an almost last stage of cooling and packing as follows.

This process was found to be practical and is being adopted by all the corkermen. Trying to bring the corkermen up to 1977 standards of hygiene has proved to be somewhat more difficult; they are now being drilled into a "clean" and a dirty side, with a lean on the side of "dirty" of pre-sterilisation side, instead of "clean" side (Fishing News, March 18).

Last, but by no means least, this particular virus showed remarkable powers of resilience, managing to survive the effects of heat, cold, salt and even acetic acid.

No doubt many of those factors had been there for years and it was almost fate which had brought them into coincidence, causing the spread of a local gastrointestinal disease across a large part of south-east England.

By then, however, the experts were being pressed for a solution by the corkermen, whose livelihoods were threatened. They wanted a way of ensuring that the trouble would not start all over again.

Such an absolute assurance was not forthcoming, especially when a natural requirement of any new regime is that the cockle at the end of its processing should be both edible and saleable.

Compromise

A further difficulty is that thermal bacteriological methods would not detect virus contamination, nor would methods of sterilisation designed to kill bacteria necessarily kill viruses.

But, short of closing down the whole cockle industry, a compromise had to be found. This is a method of production which would minimise the risk while still permitting the production, at an economic price, of a saleable article of food.

A five-point plan was evolved which it was thought would satisfy these requirements. The points were:

1) the avoidance of fishing the more heavily polluted beds;

2) improved methods of processing;

3) improved food hygiene in premises, equipment and personnel;

4) improved packaging and transportation to reduce both the risk of further contamination and the growth of any organisms that survived the new processing; and

5) labelling of even the

Robert Grant

company has decided that they can not run a risk of a similar outbreak of food poisoning from other sources of supply and has, therefore, notified senders and processors of cockles from other areas that they will be expected to comply with the same conditions being imposed on the Leigh men.

Perhaps the most significant factor in this episode is that men, primarily by one look and training sailors and fishermen, are undertaking a process that produces a food which did not require further safeguard of cooking.

This is a job more suited to the food technologist who has an understanding of the potential dangers of such a food.

Low price steel hulls on 'spec'

A VERY competitively priced 30ft. steel fishing boat hull is now being produced on Humberaide. Available in two versions of 3mm or 5mm steel, the hulls are priced at £1,650 and £1,985 respectively.

After building a range of 30ft. boats, the firm of Hull Steel Craft Ltd. has now concentrated its production on the 30ft. hull. Dimensions are: beam 10ft; draft 3ft. 3in. and waterline length, 27ft.

Hulls are being built at the rate of one a week up to 200.

The basic price includes a choice of forward or aft mounted wheelhouse, or an aft wheelhouse with cabin, engine beds, steel deck, floor bearers and stern tube and rudder are also included.

By building on 'spec'

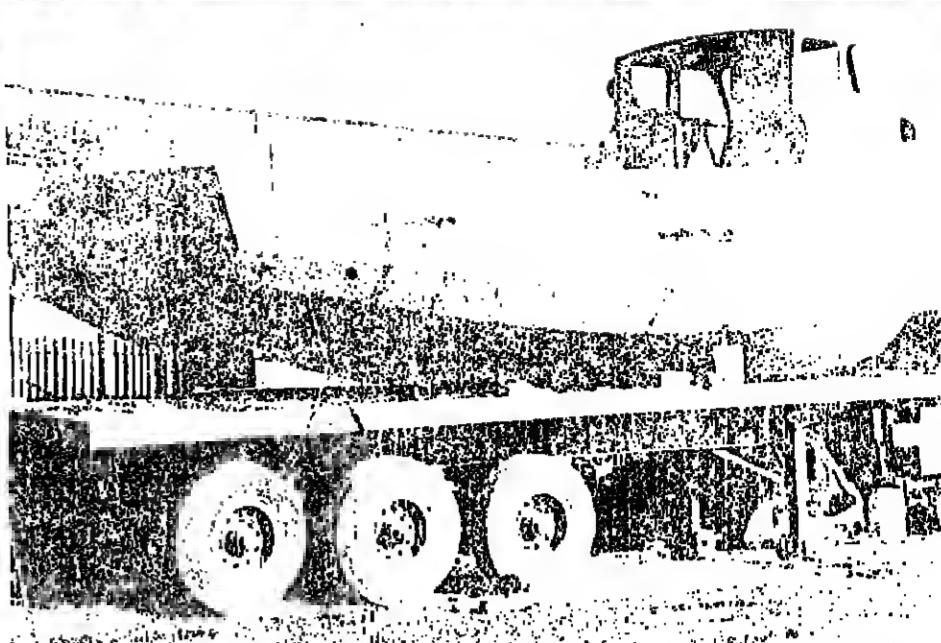
the yard plans to give an immediate delivery service.

Right: the first Hull Steel Craft 30ft. hull and wheelhouse ready for delivery to North Wales. The yard offers a choice of wheelhouse arrangements.

The first hull in this new series has recently been delivered to North Wales and another is due to go to Devon.

By building on 'spec' the yard plans to give an immediate delivery service.

Right: the first Hull Steel Craft 30ft. hull and wheelhouse ready for delivery to North Wales. The yard offers a choice of wheelhouse arrangements.



NOW on trials from the engine, Burton Lonsdale has split Smallwood six-ton trawl Eyemouth Boatbuilding Co. a forward wheelhouse, built for Northwinton Trawlers Ltd., she will be fitted midships with separate rope reels port and starboard. Burton Lonsdale will probably start off by trawling for white fish.

Burton Lonsdale was designed by James Evans.

TRIALS FOR BURTON LONSDALE



New 39-footer for Helford

Light of Helford is the fourth Gerald Praen boat owned by Praen at Marazion, Cornwall, is *First Light of Helford* for Ben Kirby.

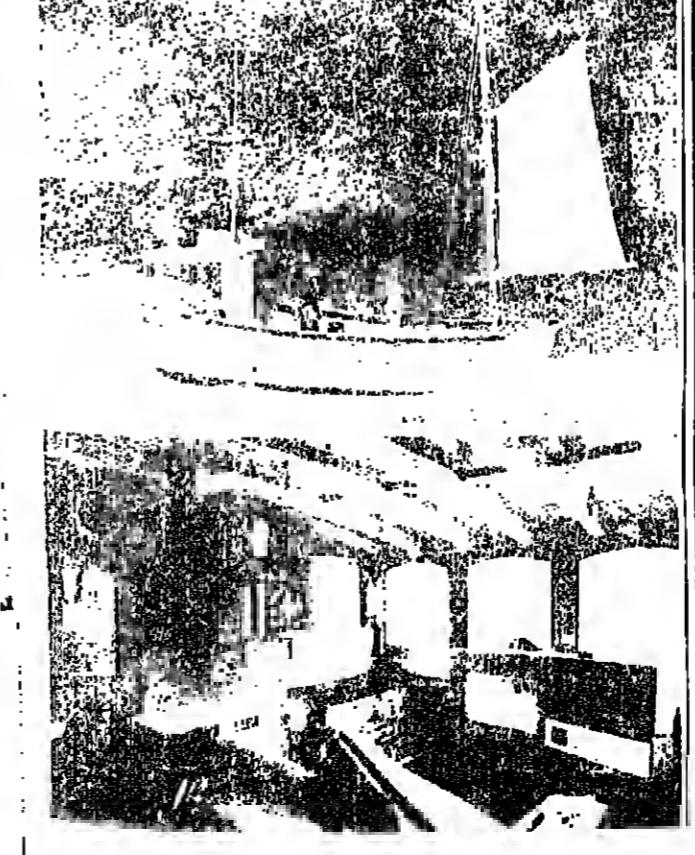
With a length of 30ft. and beam of 13ft., she has a forward wheelhouse with four berths below.

She is fitted with a Gardner 3LXB engine of 170hp and has a 'Sailor' T121E/R105 and 'Sailor' VHF R/T144 radios, Kelvin Hughes MS44 sounder, Deco Cetak 901 autopilot connected to the Wills Hydraulic dual station steering and a Deco 101 radar.

At the time of delivery her only deck equipment was a Fishing Hydraulics net and line hauler which will be used until the winter season when further equipment will be fitted. She is now fishing net in deep water.

With a crew of five, *First*

Light of Helford (below) is now working ray nets. Above: the large deck area of the wooden 30-footer. Bottom: inside her forward wheelhouse.



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